

ABSTRACT OF THE DISCLOSURE

Disclosed is about a main frame of a tension mask assembly, in which the configuration of the main frame is enhanced to prevent howling, the localized tension concentration of the tension mask is reduced to prevent plastic deformation or break of the tension mask in a heat treatment of a Braun tube, and stiffness can be enhanced without increasing the overall main frame size and production cost.

The tension mask assembly comprises: a tension mask having electron beam through holes shaped as a slot or grill, a sub-frame for tensioning the tension mask, and main frames welded to the tension mask, wherein each of the main frames is bent at a middle portion in the width direction, and has a portion perpendicular to the tension mask defining a partition and another portion opposite to the tension mask defining a lower plane, wherein widths of a middle portion and both ends of the lower plane are formed in the range of the following equation: $0 < \frac{w_1 - w_2}{w_2} \leq 1.0$, herein, w_1 is the width of the middle portion, and w_2 is the width of both ends. Alternatively, each of the main frames has a partition perpendicular to the tension mask, a lower plane perpendicularly bent from the partition with a certain width to be opposed to the tension mask, and a support bent from the lower plane to support the partition at the outer edge, wherein widths of a middle portion and both ends of the lower plane are formed in the range of the following equation: $0 < \frac{y_1 - y_2}{y_2} \leq 1.0$, herein, y_1 is the width of the middle portion, and y_2 is the width of both ends. It is preferred that widths of a middle portion and both ends of the support are formed in the range of the following equation:

$0 < \frac{d_1 - d_2}{d_2} \leq 1.0$, herein, d_1 is the width of the middle portion, and d_2 is the width of both ends.